What is claimed is:

1. A fusion polypeptide comprising a first polypeptide operably linked to a second polypeptide, wherein the first polypeptide comprises at least a region of a glycoprotein Ibα polypeptide and the second polypeptide comprises at least a region of an immunoglobulin polypeptide.

2. The fusion polypeptide of claim 1, wherein said first polypeptide includes an extracellular portion of a membrane glycoprotein Ibα polypeptide.

3. The fusion polypeptide of claim 2, wherein said first polypeptide binds to one or more of the polypeptides selected from the group consisting of a leukocyte integrin Mac-1 polypeptide, von Willebrand factor, thrombin and P-selectin.

4. The fusion polypeptide of claim 3, wherein said first polypeptide is at least 85% homologous to SEQ ID NO:1.

5. The fusion polypeptide of claim 1, wherein said polypeptide comprises SEQ ID NO:1.

6. The fusion polypeptide of claim 1, wherein said first polypeptide is more resistant to proteolysis than a wild-type GP Ibα1 polypeptide.

7. The fusion polypeptide of claim 1, wherein said first polypeptide binds with higher affinity to a von Willibrand factor polypeptide than a wild-type glycoprotein Ibα polypeptide binds to said von Willibrand factor polypeptide.

8. The fusion polypeptide of claim 7, wherein said first polypeptide comprises at least one of the amino acid substitutions G233V or M239V relative to the amino acid sequence of a wild-type GPIb α polypeptide.

9. The fusion polypeptide of claim 7, wherein said first polypeptide comprises the amino acid substitutions G233V and M239V relative to the amino acid sequence of a wild-type GPIb α1 polypeptide

10. The fusion polypeptide of claim 1, wherein said second polypeptide comprises a region of a heavy chain immunoglobulin polypeptide.

11. The fusion polypeptide of claim 10, wherein said second polypeptide comprises an Fc region of an immunoglobulin heavy chain.

12. The fusion polypeptide of claim 11, wherein said second polypeptide has less effector function than the effector function of a Fc region of a wild-type immunoglobulin heavy chain.

13. The fusion polypeptide of claim 12, wherein said second polypeptide binds with low or no affinity to a Fc receptor.

14. The fusion polypeptide of claim 12, wherein said second polypeptide binds with low or no affinity to complement protein C1q.

15. The fusion polypeptide of claim 2, wherein said second polypeptide comprises a region of a heavy chain immunoglobulin polypeptide.

16. The fusion polypeptide of claim 15, wherein said second polypeptide comprises an Fc region of an immunoglobulin heavy chain.

17. The fusion polypeptide of claim 15, wherein said second polypeptide has less effector function than the effector function of a Fc region of a wild-type immunoglobulin heavy chain.

18. The fusion polypeptide of claim 17, wherein said second polypeptide binds with low or no affinity to a Fc receptor.

19. The fusion polypeptide of claim 17, wherein said second polypeptide binds with low or no affinity to complement protein C1q.

20. The fusion polypeptide of claim 1, wherein said fusion polypeptide comprises the amino acid sequence of GP1b302-Ig (SEQ ID NO:1), Gp1b302/2A-Ig (SEQ ID NO:2), GP1b302/4X-Ig (SEQ ID NO:3), GP1b290 Ig (SEQ ID NO:4), GP1b290/2V-Ig (SEQ ID NO:5.) and GP1b290/1A-Ig (SEQ ID NO:6.).

21. A multimeric polypeptide comprising the fusion polypeptide of claim 1.

22. The multimeric polypeptide of claim 21, wherein said multimeric polypeptide is a dimer.

23. A DNA molecule encoding the fusion polypeptide of claim 1.

24. A vector comprising the DNA of claim 21.

25. A cell comprising the vector of claim 22.

26. A method for expressing glycoprotein Ibα polypeptide-immunoglobulin fusion polypeptide, the method comprising culturing the cell of claim 25 under conditions that result in expression of said glycoprotein Ibα polypeptide-immunoglobulin fusion polypeptide.

27. A pharmaceutical composition comprising the fusion polypeptide of claim 1.

28. A pharmaceutical composition comprising the nucleic acid of claim 23.

29. A method of inhibiting adherence of a blood cell to a biological tissue in a biological system, the method comprising adding to said biological system the fusion polypeptide of claim 1 in an amount sufficient to inhibit adherence of said blood cell to said biological tissue.

30. The method of claim 29, wherein said biological system is an *in vitro* system.

31. The method of claim 29, wherein said biological system is an *ex vivo* system.

32. The method of claim 29, wherein said biological system is an *in vivo* system.

33. The method of claim 29, wherein said blood cell is a platelet.

34. The method of claim 33, wherein said platelet express glycoprotein Ib α, P-selectin or thrombin.

35. The method of claim 29, wherein said blood cell is a leukocyte.

36. The method of claim 35, wherein said leukocyte express Mac-1 or a selectin ligand.

37. The method of claim 29, wherein said biological tissue is complexed with von Willibrand Factor or thrombin, glycoprotein Ib α, or P-selectin.

38. A method of inhibiting adherence of a protein to a biological tissue in a biological system, the method comprising adding to said biological system the fusion polypeptide of claim 1 in an amount sufficient to inhibit adherence of said protein to said biological tissue.

39. The method of claim 38, wherein said biological system is an *in vitro* system.

40. The method of claim 38, wherein said biological system is an *ex vivo* system.

41. The method of claim 38, wherein said biological system is an *in vivo* system.

42. The method of claim 38, wherein said protein is membrane associated.

43. The method of claim 42, wherein said protein is glycoprotein Ibα, P-selectin, von Willibrand Factor or thrombin.

44. The method of claim 38, wherein said protein is in solution.

45. The method of claim 44, wherein said protein is von Willibrand Factor or thrombin.

46. The method of claim 38, wherein said biological tissue is complexed with a protein selected from the group consisting of glycoprotein Ibα, Mac-1, P-selectin, von Willibrand Factor and thrombin.

47. A method of treating a disorder associated with platelet activation in a subject, the method comprising administering to a subject in need thereof the fusion polypeptide of claim 1.

48. The method of claim 47, wherein said disorder is associated with thrombotic disease.

49. The method of claim 47, wherein said disorder is ischemic heart disease, angina, acute myocardial infarction, stroke, venous thrombosis, atherosclerosis, or arterial thrombosis.

50. The method of claim 47, wherein said disorder is angina.

51. The method of claim 50, wherein said angina is unstable angina.

52. The method of claim 47, wherein said subject is a human.

53. The method of claim 47, further comprising administering to said subject a compound selected from the group consisting of acetylsalicylic acid, heparin, a glycoprotein IIb/IIIa antagonist, clopidogrel, a P-selectin antagonist, a thrombin inhibitor and a thrombolytic enzyme.